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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,310	08/24/2005	Yves Bader	HT3930USPCT	6435

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John E Griffiths
E I Du Pont De Nemours and Company
Legal Patent Records Center
4417 Lancaster Pike
Wilmington, DE 19805

EXAMINER

JOHNSON, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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07/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,310	Applicant(s) BADER ET AL.	
	Examiner Jenna-Leigh Johnson	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 13-18, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 8, 13-18, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Amendment submitted on March 27, 2008, has been entered. Claims 9 - 12, 19, and 22 - 24 have been cancelled. Claims 1 - 8, 13, 15 - 18, 20, and 21 have been amended. Therefore, the pending claims are 1 - 8, 13 - 18, 20, and 21.
2. The claim objections to claims 7, 8, 13 - 18, 20, and 21 are withdrawn due to the amendments changing the dependency of the claims.
3. The objection to the misspelling of "polyamidimid is withdrawn since the term has been amended to the correct spelling.
4. The objection to claims 3 and 4 are withdrawn since the claims have been amended.
5. The 35 USC 102 and 35 USC 103 rejections based on WO 03/039280 are withdrawn because the claims have been amended to require that the different yarns are present on both sides of the fabric in an alternating manner. However a new rejection based on WO 03/0398280 is set forth below.
6. The 35 USC 102 rejections based on Graham et al. (5,685,347) are withdrawn because the claims have been amended to require that the fabric is made from two different yarns with different dimensional thermal shrinkage and that the two different yarns are present on both sides of the fabric in an alternating manner.

Claim Objections

7. Claims 5 and 6 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims not been further treated on the merits.
8. Claim 1 is objected to because of the following informalities: for the misspelling of "polybenzimidazol". The applicant argues that the spelling is correct. However, according to polymer science dictionaries the proper spelling is "polybenzimidazole". Appropriate correction is required.

Claim Rejections - 35 USC § 112

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9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1 - 4, 7, 8, 13 - 18, 20, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Claim 1 is indefinite. The claim requires that the fabric is made up of two *separate single plies*, and that those two *separate plies* are woven together such that the cross each other so that the same side of the woven fabric has alternating regions which are made of the two *separate single plies*. It is unclear how the two *plies* made of different materials can be woven together in the claimed manner and remain *separate single plies*. Thus, it is unclear what the applicant is defining the term "separate single plies" to mean. If the applicant is producing the single plies as individual fabrics and then weaving them together it is unclear how the two separate fabrics can then be woven together to form the desired alternate pattern without the destroying the individual fabric nature of the *separate plies*. Fabrics cannot be interwoven without somehow destroying the single fabric structure of the fabric in order to create a new fabric.

If instead, the applicant is intending the term plies just to mean layers or sublayers within the woven fabric, then each ply would be made from both types of yarns as the yarns switch back and forth between the upper layer of the woven fabric and the lower layer of the woven fabric. In a woven fabric, with this structure the yarns are interwoven to create a single fabric with multiple layers, but not layers that could be considered *separate single plies*. The top and bottom ply of the fabric could not be separated from each other without destroying the integrity of both plies and the plies would both be made both types of materials. If one were to try to separate the fabric so that each ply would have only one type of material, again the plies would both be destroyed. Thus, it is unclear what the exact structure of the "separate single ply" being claimed is and how separate single plies made of different thermal shrinkage materials can be woven

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together to create the claimed alternating pattern. Claims 2 - 4, 7, 8, 13 - 18, 20, and 21 are also rejected due to their dependency on claim 1.

Claim Rejections - 35 USC § 103

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claims 1 - 4, 7, 8, 13 - 18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/039280 (English Translation) in view of Faircloth (3,359,610).

The features of WO 03/039280 have been set forth in the previous Office Action. WO 03/039280 fails to teach interweaving together the different materials in the different layers to create pocket regions that can contract upon exposure to heat. Faircloth is drawn to a woven fabric with pocket regions that pucker as a result of heat. Faircloth shows that different known weaving patterns can be used to create pocket regions in a multi-layered woven fabric (column 1, line 62 - column 2, line 25). Thus, it would have been obvious to one having ordinary skill in the art to interweave the different fiber materials in a multilayered fabric, as taught by Faircloth, to create the fabric of WO 03/039280 with woven pocket regions that pucker upon exposure to heat. One of ordinary skill in the art could use any known weave pattern with pocket regions to create the fabric such that the fabric will form pockets that insulate upon exposure to heat. Therefore, claims 1 - 4, 7, 8, and 13 - 16.

Further, WO 03/039280 teaches that the fabric can be used in garments (abstract). And the garment can include barrier layers (page 7). Thus, claims 20 and 21 are rejected.

Also the fabric can have a weight of 230 grams per square meter (page 6). Thus, claims 17 and 18 are rejected.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Johnson whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jlj
July 21, 2008

/Jenna-Leigh Johnson/
Primary Examiner, Art Unit 1794